ENVIRONMENTAL RESTORATION, LLC
RESTORATION PLAN

PROJECT NAME: California Gulch- Leadville
PROJECT JOB NO.: CG8- 17
PROJECT LOCATION: Leadville, Colorado
CONTRACT NO. EP-W-07-052
TASK ORDER NO: 017

RESTORATION PLAN

Upon completion of the Leadville Mine Drainage Tunnel (LMDT) pipeline, Environmental Restoration, LLC will begin restoration activities as outlined by the Environmental Protection Agency.

The California Gulch NPL – Leadville Drainage Tunnel Facility Site restoration plan has been organized as follows:

Site controls are items to be managed and maintained throughout the duration of the project. These items ensure the safe, efficient, and environmental control of the site work.

Areas will be backfilled with the existing native soil and the original lines and grades of the site will be re-established whenever possible.

Temporary Storage Pond

Upon completion of the pump test, the temporary storage pond will be removed at the earliest possible convenience. The section of piping from the LMDT pipeline to the pond will be removed, as well as overflow piping. The pond will be allowed to naturally drain to manageable levels. A temporary trench will be cut to allow drainage of historical flows to Little Evans Gulch. The pond will be filled in with native soil and brought to previous grade.

Pipeline backfill

The pipeline will be bedded in 12" of sandy material containing with no rocky material greater than ¾". The material will be compacted using a plate tamper and best construction methods. The fiber optic conduit will be backfilled in the same manner. The pipeline will then be covered with native soils to a depth no less than 8 feet and no greater than 20 feet. The fiber optic conduit will be covered in the same manner with a depth to be no less than 2 feet. Both the conduit and pipeline will be marked with indicator tape.

Access Road

An access road from the 46+96 well to 10+25 well will be created to allow continued maintenance of the pipeline. The access road will allow for single lane access of the pipeline. The road shall be constructed of native soils and compacted by sheep's foot and smooth drum compactors. Culverts will be used when necessary to allow for historical drainage patterns. Culverts will be covered with a minimum of one foot of cover to support maintenance vehicles.

Final Grading

Disturbed areas will be graded and restored to reasonable pre-disturbance conditions wherever possible. The area will be re-graded with native excavated soils. Exceptions will be made for terrain cuts and Little Evans Gulch. These changes will be addressed separately. The grading will restore the remaining

natural grade to pre-disturbance levels. Special care will be taken to restore recreational trails across the disturbance to previous conditions. Surface layers of the final grade may be scarified to expedite vegetation growth. Natural drainage channels will be restored and constructed with engineered erosion controls as needed. Slopes will be stabilized with erosion matting and seeding wherever necessary.

Little Evans Gulch

Where it has been disturbed Little Evans Gulch will be restored to allow for historical water flows. An engineered trench will be created to allow for maximum spring runoff. A twenty four inch culvert will be used to allow for water flow through the access road. The trench will be lined and armored with rock to prevent erosion.

Terrain Cuts

In order to insure no more than 20 feet of cover on the LMDT pipeline, terrain cuts may not be restored to pre-existing conditions. The terrain cuts will be re-graded and stabilized to maintain road access. Slopes will be graded to 2 to 1 or greater. Erosion mat will be used for short term slope stabilization. Native vegetation will be used for long term stabilization.

Re-vegetation

All disturbed areas will be re-vegetated. A seed mixture containing native species will be developed for the re-vegetation. The mixture will be developed to aid in soil stabilization as well as aesthetics of the restored area.

Grubbed vegetation

Grubbed vegetation will be chipped and spread with native soil to increase biomass and improve future soil quality. Stumps from trees may be shipped offsite for disposal.

Mineral Belt Bike Trail

The mineral belt bike trail will be repaired where necessary. Disturbed areas of the bike trail will be resurfaced with a minimum two inch overlay. The trail will be remarked and restored to its original condition.

County Road 3A

County Road 3A has been used as the main access to the site since June 2008. During this time several improvements have been necessary to the road. All current road improvements will remain in place. In addition further improvements may be made to allow for future access to the LMDT pipeline and 46+96 pumphouse.

Equipment

The following is the proposed equipment to be used during site restoration.

- Dozers
- Loaders

- Excavators
- Mini-excavators
- Skid steer loaders
- Dump trucks (on and off road)
- Various hand-tools and small tools
- Rollers (smooth drum and sheep's foot)
- Shredder

Personnel

The following is the proposed personnel to be used during site restoration:

- Response Manager (1)
- Foreman (1)
- Operators (8)
- Clean-up technicians (4)
- FCA (1)